

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004131**Date Inspected:** 13-Oct-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Lvliqing and Huang Wen Pang			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	OBG and SAS Tower Fabrication		

**Summary of Items Observed:**

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

**Bay 7: OBG - Floor Beam Sub Assembly**

This QA randomly observed ZPMC welder Zhang Qingquan ID #044774 and Hun Kun ID #066752 utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2231-B-U2-F to weld CJP fill pass on flange splice butt joint on FB003-084 weld joints 104 and 105 respectively. The QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring preheat and weld parameters.

The QA Inspector randomly observed ZPMC welder Duan Xin Zhi ID Number 050502 utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-L2c-S-2, to weld the fill pass on plate splice butt joint of floor beam sub-assembly FB027-006-079. QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring weld parameters.

This QA randomly observed ZPMC welder ID Number 068501, utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2231-Tc-U2-F-1 to weld CJP root pass on plate splice butt joint on floor beam FB024-003-079.

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The QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring preheat and weld parameters.

FCAW(2F) fillet welding on stiffener to web plate FB009-013 weld joints 015/016 and 017/018 utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H following WPS-B-T-2132-3 this QA observed. ZPMC welder Hong Shuili ID #044815 was seen performing the task. Tack/fit-up of various stiffeners to web plate on floor beam FB012-015 and FB012-008 using TL-508 electrode was also observed.

### Bay 8: Tower Diaphragm

This QA observed ZPMC welders ID #068924, ID #037997, ID #066456 and 066457 SMAW(2G) PJP welding root pass on 60mm stiffener plate to (bottom) tower double diaphragm WSD1-SA32B/B weld joints 9, 10, 13 and 14. ZPMC welders were noted utilizing Excalibur E9018M H4R, 4.8mm diameter electrode following WPS-B-T-3312-Tc-P5. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters. Tack/fit-up of 40/60mm web/stiffener plate to (bottom) tower double diaphragm WSD1-SA301B/B using Excalibur E9018M H4R, 4.8mm diameter electrode was also observed.

The QA Inspector randomly observed ZPMC welder ID Number 045218 utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-3221-B-U3c-S-1, to weld the fill pass on 75mm plate splice butt joint of tower diaphragm plate SSD1-SA244A/B-1A. Tack/fit-up of W16 flange to tower diaphragm plate NSD1-SA126 using TL-508 electrode following WPS-B-P-2112 by ZPMC welder Rao Wei ID #049972. QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

### Summary of Conversations:

No significant conversation occurred today.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Lizardo, Joselito	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar, Robert	QA Reviewer

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